

# Run-8 Trigger Meeting

## December 04, 2007

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# Run Summary - Mozilla Firefox

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http://localhost:5889/runcontrol/RunSummary.php?RunNumber=246597

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Name	Bit Mask	Scale Down	State	Raw Trigger Count	Raw Trigger Rate	Live Trigger Count	Live Trigger Rate	Scaled Trigger Count	Scaled Trigger Rate	Livetime
Clock	0x00000001	999999	Enabled	860645851	448720.46	-1834835687	-956640.09	15345	8.00	-2.13
RxnNP&BBC	0x00000002	9999999	Enabled	60139716	31355.43	51265684	26728.72	5	0.00	0.85
BBCLL1(>0 tubes)	0x00000004	65	Enabled	125145657	65248.00	106318562	55431.99	1610887	839.88	0.85
BBCLL1(noVertexCut)	0x00000008	1500	Enabled	202940260	105808.27	172464683	89919.02	114899	59.91	0.85
ZDCLL1wide	0x00000010	700	Enabled	63444483	33078.46	54109079	28211.20	77188	40.24	0.85
ZDCLL1narrow	0x00000020	120	Enabled	28477545	14847.52	24281876	12660.00	200676	104.63	0.85
MPC_4x4	0x00000040	9999999	Enabled	603620	314.71	493967	257.54	0	0.00	0.82
MPC_2x2	0x00000080	9999999	Enabled	1270431	662.37	1045270	544.98	0	0.00	0.82
ERTLL1_4x4a	0x00000100	1	Enabled	803825	419.10	666674	347.59	333337	173.79	0.83
ERTLL1_4x4b	0x00000200	0	Enabled	335915	175.14	256779	133.88	256779	133.88	0.76
ERTLL1_4x4c	0x00000400	9999999	Enabled	8057788	4201.14	6599409	3440.78	0	0.00	0.82
ERTLL1_2x2&BBCLL1	0x00000800	9999999	Enabled	32835293	17119.55	27971990	14583.94	2	0.00	0.85
ERTLL1_4x4a&BBCLL1	0x00001000	0	Enabled	664905	346.67	565343	294.76	565343	294.76	0.85
ERTLL1_4x4b&BBCLL1	0x00002000	0	Enabled	255667	133.30	216951	113.11	216951	113.11	0.85
ERTLL1_4x4c&BBCLL1	0x00004000	0	Enabled	2170083	1131.43	1846418	962.68	1846418	962.68	0.85
ERTLL1_E&BBCLL1	0x00008000	0	Enabled	4355768	2270.99	3709754	1934.18	3709754	1934.18	0.85
MUIDLL1_N1D&BBCLL1	0x00010000	0	Enabled	1087103	566.79	918751	479.02	918751	479.02	0.85
MUIDLL1_S1D&BBCLL1	0x00020000	2	Enabled	8826719	4602.04	7439719	3878.89	2479906	1292.96	0.84
MUIDLL1_N1S&BBCLL1	0x00040000	20	Enabled	6818864	3555.19	5784951	3016.14	275473	143.63	0.85
MUIDLL1_S1S&BBCLL1	0x00080000	9999999	Enabled	46153000	24063.09	39181479	20428.30	3	0.00	0.85
MUIDLL1_N2D&BBCLL1	0x00100000	0	Enabled	27254	14.21	22707	11.84	22707	11.84	0.83
MUIDLL1_S2D&BBCLL1	0x00200000	0	Enabled	909438	474.16	758526	395.48	758526	395.48	0.83
(MUIDLL1_N1D&S1D)&BBCLL1	0x00400000	0	Enabled	121980	63.60	101239	52.78	101239	52.78	0.83
(MUIDLL1_N2D&S2D)&BBCLL1	0x00800000	0	Enabled	704	0.37	534	0.28	534	0.28	0.76
(MUIDLL1_N2D  S2D)&BBCLL1	0x01000000	0	Enabled	935988	488.00	780699	407.04	780699	407.04	0.83
MUIDLL1_N2D&S2D	0x02000000	0	Enabled	42579	22.20	28226	14.72	28226	14.72	0.66
ZDCN  ZDCS	0x04000000	3500	Enabled	343918101	179310.79	293633234	153093.45	83871	43.73	0.85
ZDCNS	0x08000000	900	Enabled	59914890	31238.21	50986548	26583.18	56588	29.50	0.85
PPG(Pedestal)	0x10000000	0	Enabled	1912	1.00	1638	0.85	1638	0.85	0.86

Done

Run 246597 BBC rate ~ 65 kHz

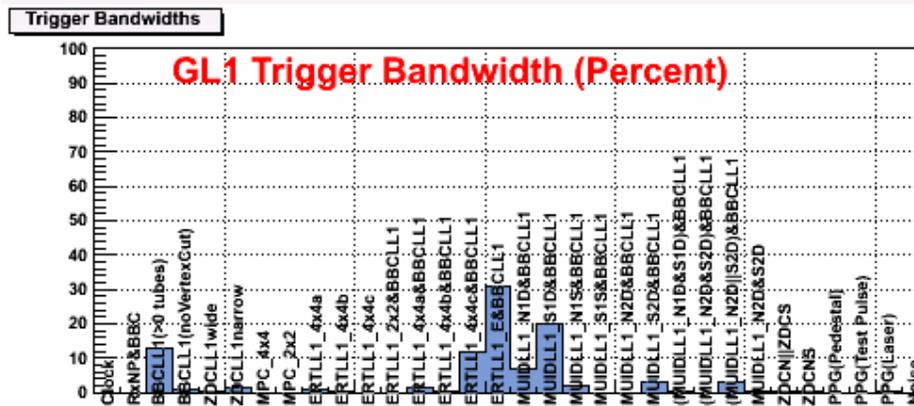
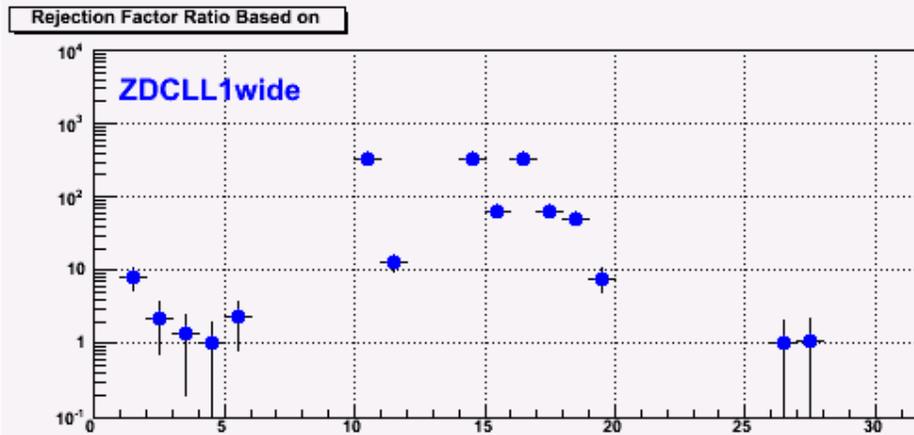
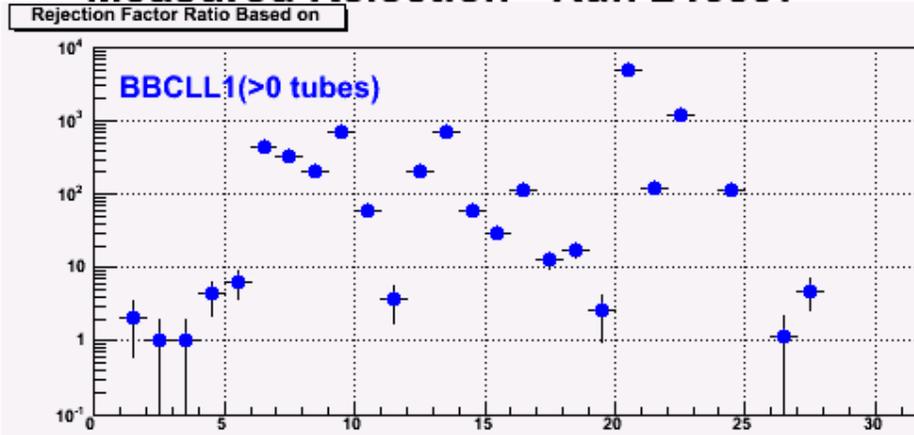
ERT4x4a & BBCLL1 (2.8 GeV)	Rejection	188
ERT4x4b & BBCLL1 (3.5 GeV)	Rejection	490
ERT4x4c & BBCLL1 (2.1 GeV)	Rejection	57
ERT_E & BBCLL1 (600 MeV)	Rejection	29
MUID_N2D & BBCLL1	Rejection	4600
MUID_S2D & BBCLL1	Rejection	137
MUID_N1D & BBCLL1	Rejection	115
MUID_S1D & BBCLL1	Rejection	14
MUID_N1S & BBCLL1	Rejection	18
MUID_S1S & BBCLL1	Rejection	3
MPC4x4	Rejection	200
MPC2x2	Rejection	98

Need to raise threshold when BBC ~ 130-150 kHz.

Try Vince's proposal.

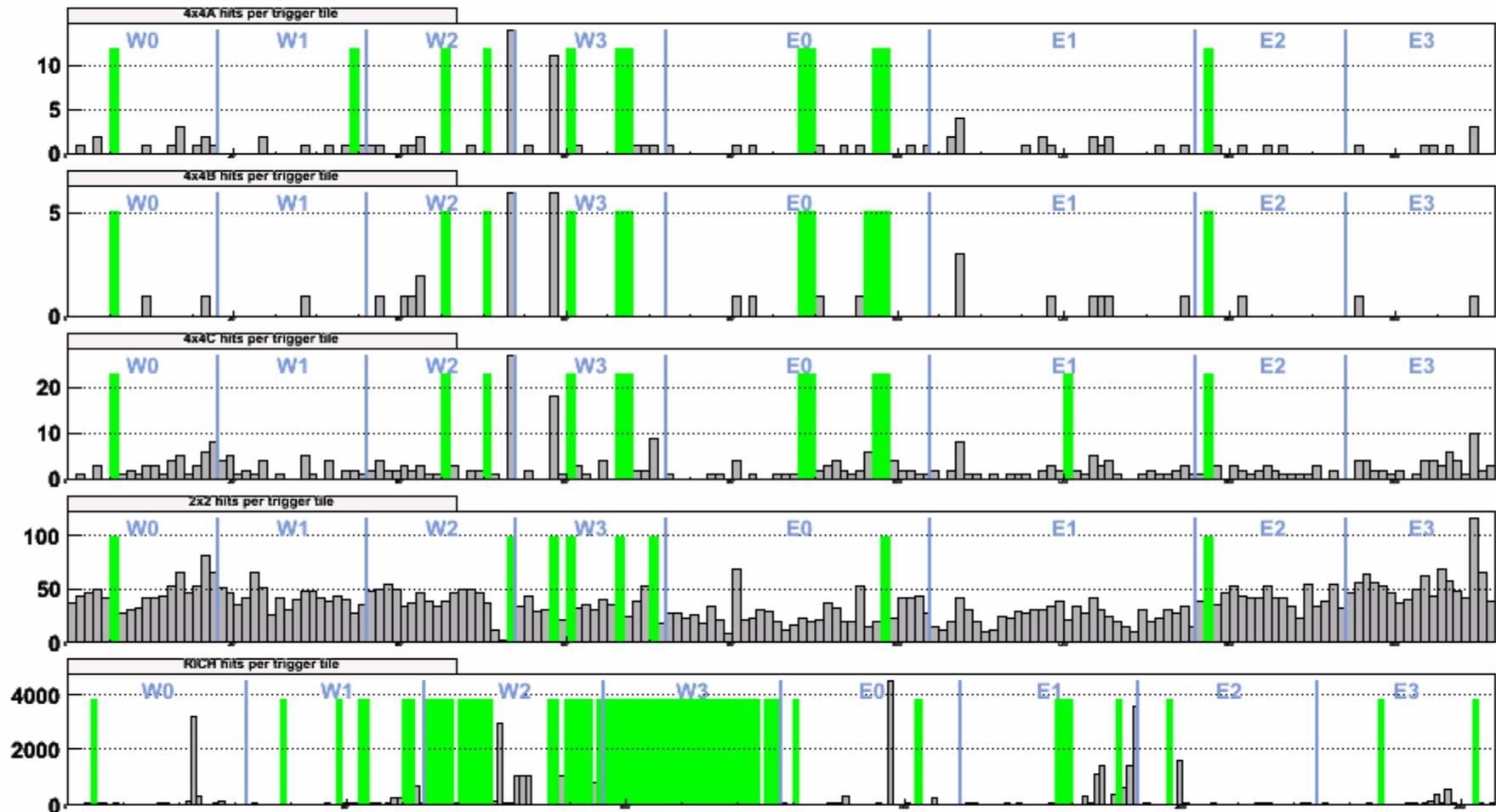
Unprescale as default.

# Measured Reiection - Run 246597



# ERT Online Monitor

## Run 246597 Tue Dec 4 04:48:26 2007



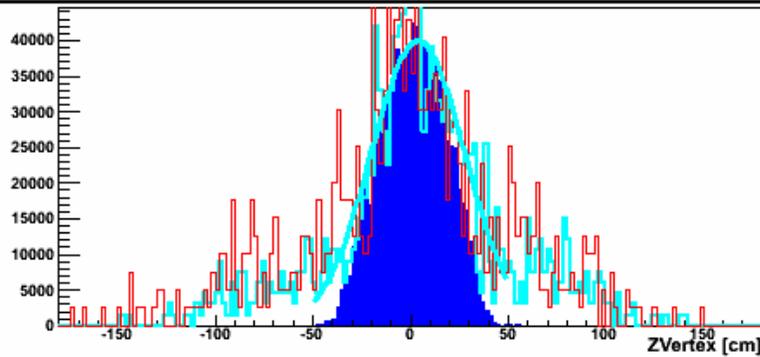
**PHYSICS RUN**  
Events: 104490 processed, 18269 analyzed  
Evt sel: trig 0x3c

**OK.**

# BBC ONLINE MONITOR

Run #246597 Events: 99281 Date: Tue Dec 4 04:48:22 2007

Bbc ZVertex (south<-->north)



$Z_{\text{BBC}}^{\text{Fit}}$  w/o Vtx = 3.7 cm ( $\sigma = 23$  cm) ... OK

Z [Trigger]	Zbbc [BBLL1]	Zzdc [ZDLL1wide]	Zbbc [BBCLL1(noVtxCut)]
(Scale Fac.) #Evt.	( 66 ) 14101	( 701 ) 695	( 1501 ) 1041
< Each histograms are scaled by scaled factor.>			
Vertex Mean (RMS)	1.4cm ( 16.6 cm)	-2.8cm ( 51.3 cm)	4.4cm ( 44.2 cm)
$\sigma_{\text{ZDC}} = 0.372$	$\sigma_{\text{BBC}} = 0.348$	beam in acceptance ZDC = 0.106	beam in acceptance BBC = 0.610

TimeZero vs ZVertex

